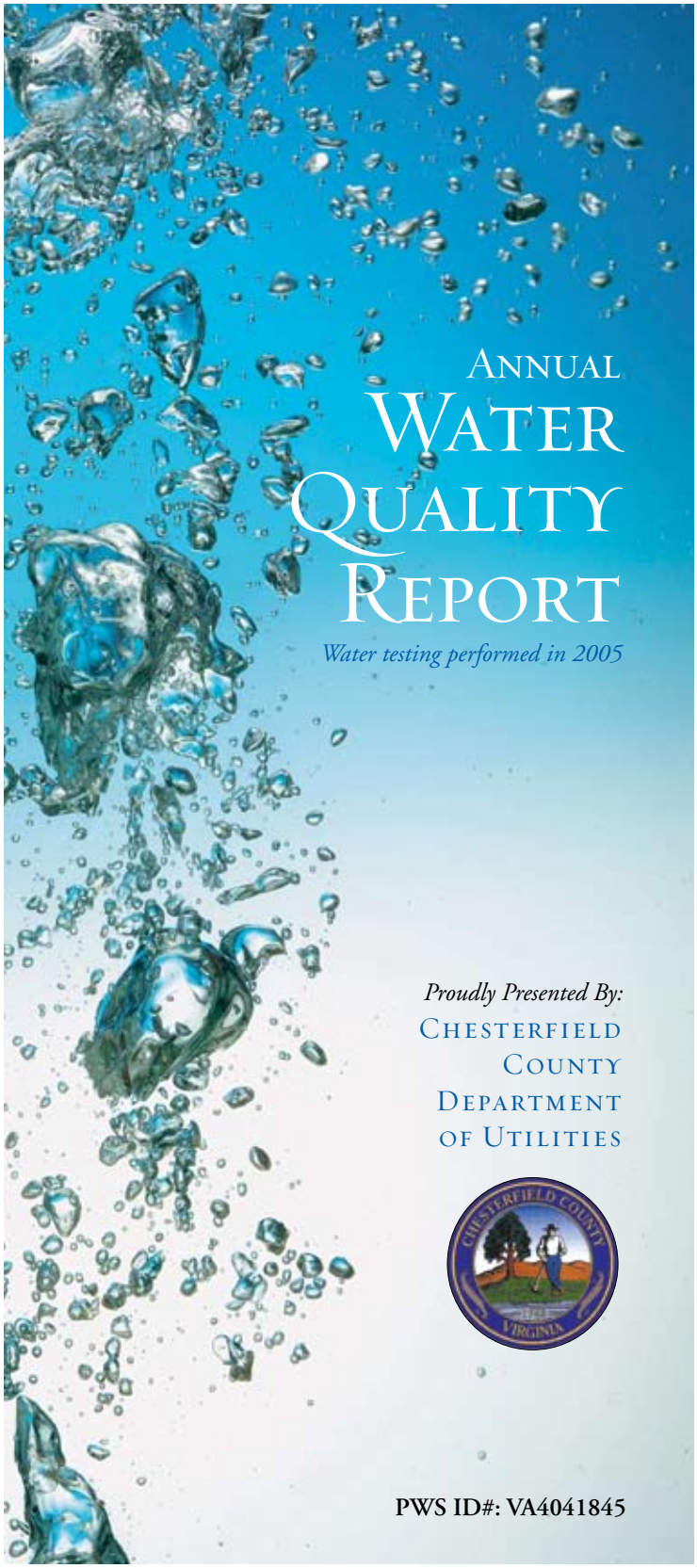


Annual Water Quality Report

Water testing performed in 2005

Proudly Presented By:

Chesterfield County Department of Utilities

PWS ID#: VA4041845

Para asistencia en español, por favor llame a Juan Santacoloma Enlace Hispano del Condado de Chesterfield Teléfono: 796-7085

How Is My Water Treated and Purified?

The treatment process consists of a series of steps. In the first process, coagulation, the addition of ferric sulfate causes small particles in the water to adhere to one another and grow in size. In the next process, flocculation, the water is slowly stirred, causing particles to grow even larger. The water then passes into a settling basin where the large, heavy particles settle to the tank bottom for removal. The water is then disinfected using chlorine. Lime is added at this point to neutralize the water and make it less corrosive. The water then passes through sand and anthracite filters to remove particles not removed by settling. Just prior to distribution, the water is again disinfected using chloramine. As an additional value fluoride is added to the finished drinking water for dental protection.

Lead in Drinking Water

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels in your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If your home has copper plumbing and was built before 1986, water standing in pipes for over six hours can accumulate lead from the joints. Eliminate this possibility by running the cold-water tap until the house line is flushed—usually until the water turns cooler. This can take one to five minutes. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested. Additional information is available from the Safe Drinking Water hotline at (800) 426-4791.

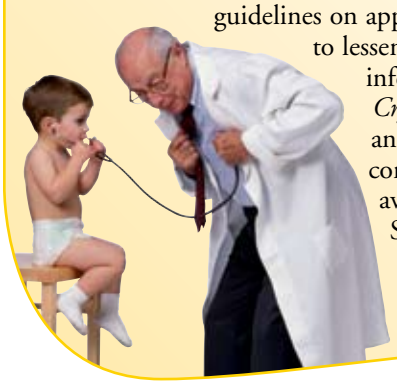
Continuing Our Commitment

Once again we proudly present our annual water quality report. This edition covers all testing completed from January through December 2005. We are pleased to tell you that our compliance with all state and federal drinking-water laws remains exemplary. As in the past, we are committed to delivering the best quality drinking water. To that end, we remain vigilant in serving the needs of all of our water users.

For more information about this report, or to ask questions relating to your drinking water, please call Wendy Harding, quality assurance coordinator, at (804) 744-1360.

Special Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health-care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791.



What's My Water Source?

The Chesterfield County Utilities Department customers are fortunate because their water is supplied by three sources. These sources assure adequate water supply well into the 21st century. The three sources that supply Chesterfield County's potable water are Swift Creek Reservoir, Lake Chesdin, and the James River. An average of 36.7 million gallons of water per day (MGD) was treated and delivered from these three water supplies in 2005.

The Department of Utilities owns and operates the Addison-Evans Water Production and Laboratory Facility, which is located on Swift Creek Reservoir. This facility has a capacity of 12 MGD and produced an average of 7.8 MGD. The county is one of five members of the Appomattox River Water Authority (ARWA). The ARWA is located on the northern side of Lake Chesdin. The county has a daily allocation of 24.54 MGD from the authority and received an average of 16.3 MGD from the facility. The third water source is the James River, which supplies the treatment facility owned and operated by the city of Richmond. This plant supplies water to the City of Richmond and to the counties of Henrico, Goochland, Hanover, and Chesterfield. The county's contract with the city assures an available supply of 27 MGD. An average of 12.6 MGD of drinking water was received from the James River in 2005.

The Safe Drinking Water Act mandated source-water assessments be performed by the Virginia Department of Health for all public water sources, including those servicing Chesterfield County. The Virginia Department of Health conducted a source-water assessment of our system during 2001.

The Swift Creek Reservoir, the James River and Lake Chesdin were determined to be of high susceptibility to contamination, using criteria developed by the state in its U.S. EPA-approved Source Water Assessment Program. The assessment reports consist of maps showing the source-water assessment area, an inventory of known land-use activities of concern, and documentation of any known contamination within the last five years from the date of the assessment. These reports are available by contacting Wendy Harding, quality assurance coordinator, at (804) 744-1360, or the Utilities Department at P.O. Box 608, Chesterfield, Va 23832.

Water quality samples are collected from Swift Creek Reservoir monthly by laboratory staff. This data may be obtained from Scott Flanigan, water quality manager for Chesterfield County, at (804) 768-7435

Water Conservation Tips

Water conservation measures are an important first step in protecting our water supply. Such measures not only save the supply of our source water, but also can save you money by reducing your water bill. Here are a few suggestions:

Conservation measures you can use inside your home:

- Fix leaking faucets, pipes, toilets, etc.
- Replace old fixtures; install water-saving devices in faucets, toilets and appliances.
- Wash only full loads of laundry.
- Do not use the toilet for trash disposal.
- Take shorter showers.
- Do not let the water run while shaving or brushing teeth.
- Soak dishes before washing.
- Run the dishwasher only when full.

You can conserve outdoors as well:

- Water the lawn and garden in the early morning or evening.
- Use mulch around plants and shrubs.
- Repair leaks in faucets and hoses.
- Use water-saving nozzles.
- Use water from a bucket to wash your car, and save the hose for rinsing.

Information on other ways that you can help conserve water can be found at www.epa.gov/safewater/publicoutreach/index.html.

Substances That Might Be in Water Sources

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it can acquire naturally occurring minerals, in some cases, radioactive material; and substances resulting from the presence of animals or from human activity. Substances that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

Pesticides and Herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and which may also come from gas stations, urban stormwater runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

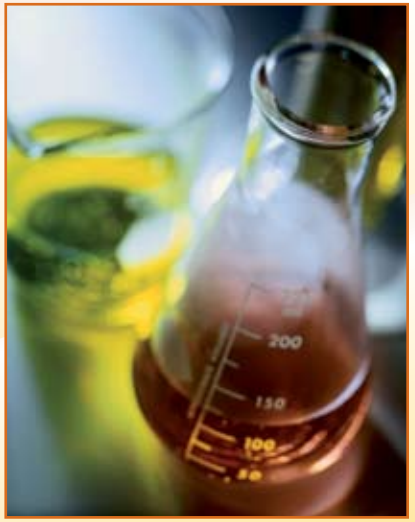


Table Definitions

AL (Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MRDL (Maximum Residual Disinfectant Level): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

NA: Not applicable

ND: Not detected

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water.

pCi/L (picocuries per liter): A measure of radioactivity.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

Removal ratio: A ratio between the percentage of a substance actually removed to the percentage of a substance required to be removed.

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.

Sampling Results

During the past year, water delivered to your home or business complied with, or exceeded, all state and federal primary drinking-water regulations. For your information, we have compiled the table below to show what substances were detected in your drinking water during 2005. Although all of the substances listed are below the Maximum Contaminant Limit set by the U.S. EPA, we believe it is important that you know exactly what was detected and how much of the substance was present in the water. The state requires us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES

SUBSTANCE (UNITS)	YEAR SAMPLED	MCL (MRDL)	MCLG (MRDLG)	ARWA AMOUNT DETECTED	ARWA RANGE LOW–HIGH	Addison-Evans AMOUNT DETECTED	Addison-Evans RANGE LOW–HIGH	Richmond AMOUNT DETECTED	Richmond RANGE LOW–HIGH	VIOLATION	TYPICAL SOURCE
Alpha emitters (pCi/L)	2002	15	0	ND	NA	0.2	0.2-0.2	0.3	0.3-0.3	No	Erosion of natural deposits
Beta/photon emitters (pCi/L)[1]	2002	50	0	1.9	1.9-1.9	2.8	2.8-2.8	1.9	1.9-1.9	No	Decay of natural and manmade deposits
Chloramines (ppm)	2005	(4)	(4)	3.01	0.9-4.9	3.01	0.9-4.9	3.01	0.9-4.9	No	Water additive used to control microbes
Chlorite (ppm)	2005	1	0.8	0.72	0.18-0.72	ND	NA	ND	NA	No	Byproduct of drinking water disinfection
Combined radium (pCi/L)	2002	5	0	0.6	0.6-0.6	0.3	0.3-0.3	0.2	0.2-0.2	No	Erosion of natural deposits
Fluoride (ppm)	2005	4	4	1.26	ND-1.26	1.29	0.6-1.29	1.28	0.7-1.28	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
HAAs [Haloacetic Acids] (ppb)	2005	60	NA	16.6	11-26	15.9	8-22	30.9	26-42	No	Byproduct of drinking water disinfection
Nitrate (ppm)	2005	10	10	0.12	0.12-0.12	0.09	0.09-0.09	0.22	0.22-0.22	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Total Coliforms (% positive samples)	2005	5% positive monthly samples	0	ND	NA	ND	NA	2	NA	No	Naturally present in the environment
Total Organic Carbon (removal ratio)	2005	TT	NA	1.34	1.20-1.55	1.44	1.28-1.5	1.4	1.0-1.8	No	Naturally present in the environment
TTHMs [Total Trihalomethanes] (ppb)	2005	80	NA	30.6	11-58	31.8	22-50	27.8	20-36	No	Byproduct of drinking water disinfection
Turbidity (NTU)[2]	2005	TT	NA	0.23	0.02-0.23	0.09	0.02-0.09	0.28	0.02-0.28	No	Soil runoff

Tap-water samples were collected for lead and copper analyses from 16 homes in each of the service areas

SUBSTANCE (UNITS)	YEAR SAMPLED	AL	MCLG	ARWA AMOUNT DETECTED (90th%TILE)	ARWA HOMES ABOVE AL	Addison-Evans AMOUNT DETECTED (90th%TILE)	Addison-Evans HOMES ABOVE AL	Richmond AMOUNT DETECTED (90th%TILE)	Richmond HOMES ABOVE AL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2004	1.3	1.3	0.128	0	0.126	0	0.29	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2004	15	0	2.9	1	6.0	0	6.1	1	No	Corrosion of household plumbing systems; Erosion of natural deposits

UNREGULATED SUBSTANCES		ARWA		Addison-Evans		Richmond		
SUBSTANCE (UNITS)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW–HIGH	AMOUNT DETECTED	RANGE LOW–HIGH	AMOUNT DETECTED	RANGE LOW–HIGH	TYPICAL SOURCE
Bromodichloromethane (ppb)	2005	6.8	2.9-10.0	8.8	5.7-12	4.3	3.5-5.4	Byproduct of drinking-water disinfection
Chlorodibromomethane (ppb)	2005	1.3	0.7-1.8	2.6	1.5-3.8	0.3	ND-0.6	Byproduct of drinking-water disinfection
Chloroform (ppb)	2005	22.5	7.5-46	20.8	14-35	23.3	16-30	Byproduct of drinking water disinfection
Sulfate (ppm)	2005	22.2	22.2-22.2	42.1	42.1-42.1	40.1	40.1-40.1	Erosion of natural deposits

[1] The MCL for beta/photon emitters is written as 4 mrem/year. The U.S. EPA considers 50 pCi/L as the level of concern for beta emitters.

[2] Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system. During the reporting year, 100% of all samples taken to measure turbidity met water quality standards.